

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference SJC/P01893WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB 03/04918	International filing date (day/month/year) 12.11.2003	Priority date (day/month/year) 13.11.2002
International Patent Classification (IPC) or both national classification and IPC B63B3/38		
Applicant GIBBS TECHNOLOGIES LIMITED et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 11.06.2004	Date of completion of this report 21.01.2005
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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB 03/04918

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*):

Description, Pages

1-8 as originally filed

Claims, Numbers

1-22 received on 09.11.2004 with letter of 09.11.2004

Drawings, Sheets

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).
(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application,
 - ☒ claims Nos. 22
because:
 - ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
 - ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 22 are so unclear that no meaningful opinion could be formed (*specify*):
see separate sheet
 - ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
 - ☐ no international search report has been established for the said claims Nos.
2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:
- ☐ the written form has not been furnished or does not comply with the Standard.
 - ☐ the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-17
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	18-21
Industrial applicability (IA)	Yes: Claims	1-21
	No: Claims	

2. Citations and explanations

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see separate sheet

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POINT III

Claim 22 contains references to the description and/or the drawings. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here. Moreover lack of clarity arises because the scope of this claim is not clear (Article 84 EPC).

POINT V

The following documents are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

- D1: WO 00/73130 A (LARSEN PER KRISTIAN ;HOLMEN NILS OTTO (NO)) 7 December 2000 (2000-12-07)
- D2: FR-A-1 499 226 (JASPARD YVES MAURICE) 27 October 1967 (1967-10-27)
- D3: DE 37 22 259 A (KOEPL J BRUNO DR) 19 January 1989 (1989-01-19)
- D4: DE 100 34 980 A (RUCK JUERGEN) 31 January 2002 (2002-01-31)
- D5: US-A-3 747 550 (STOEBERL H) 24 July 1973 (1973-07-24)

1. Claims 1-17

Document **D1 (WO 00 13130)**, which is considered to represent the most relevant state of the art discloses a watercraft according to the preamble of claim 1.

The problem to be solved by the present application is to improve the characteristics of keels as mentioned in the preamble in the case of an impact with the ground.

The solution proposed by the application consists in providing a keel which is vertically compressible.

In D1 the axis of compressibility in the case of an impact is horizontal.

The combination of features of independent claim 1 seems to be neither known from, nor rendered obvious by, the available prior art cited in the international search report.

Therefore the subject-matter of claim 1 is new and involve an inventive step in the

meaning of Article 33(2) and (3) PCT.

Claims 2 to 17 are dependent to claim 1 and are therefore also new and inventive.

The subject-matter according to any of claims 1 to 17 is industrially applicable.

2. Claims 18-21

2.1 Independent claim 18

The subject-matter of claim 18 does not involve an inventive step in the sense of Article 33(3) PCT.

Starting from the field of amphibious vehicle, the problem to be solved by the invention is to provide an amphibious vehicle which should be stable in water and whereby the keel should not be damaged when using the vehicle on land.

D1, and also D2-D5, discloses all the technical features of the subject matter of claim 18 (see indications of the search report) except the fact that the keel is not used in combination with an amphibious vehicle.

Nevertheless, considering the problem to be solved, the man skilled in the art would consider the technical field of the keels (which is the most common element which give stability to a watercraft). Furthermore, as an amphibious vehicle is a watercraft when being in water, it is obvious for the man skilled in the art to consider documents D1-D5 in order to solve the above problem for an amphibious vehicle.

As a consequence the subject matter claimed does not involve an inventive step.

2.2 Dependent claims 19-20

Dependent claims 2-20 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to novelty and inventive step (see point 1.2.2 and documents D1-D5).

OTHER OBJECTIONS

**INTERNATIONAL PRELIMINARY
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International application No. PCT/GB 03/04918

1. As mentioned above, claim 22 contains **references to the description and/or the drawings**. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here.
2. The features of the claims are not provided with **reference signs** placed in parentheses (Rule 6.2(b) PCT).
3. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents **D1 and D2** is not mentioned in the description, nor are these documents identified therein.
4. The description is not in conformity with claim 1 filed (Rule 5.1(a)(iii) PCT).

Claims

1. A water craft having a keel mounted to the underside of the craft, characterised in that the keel comprises an elongate member having at least one mounting formation for cooperative engagement with at least one corresponding mounting formation on the underside of the water craft, for removably mounting the elongate member on the water craft.
2. A water craft as claimed in claim 1, in which the elongate member is an extrusion.
3. A water craft as claimed in claim 1 or claim 2, in which the elongate member is flexible.
4. A water craft as claimed in any previous claim, in which the elongate member is adapted for sliding engagement with the at least one corresponding mounting formation on the underside of the water craft.
5. A water craft as claimed as claimed in any previous claim, in which the or each formation on the elongate member has a profile adapted for complementary engagement with the at least one corresponding mounting formation on the underside of the water craft.
6. A water craft as claimed in any previous claim, in which the at least one corresponding mounting formation is provided in a mounting member mounted to the underside of the water craft.
7. A water craft as claimed in claim 6, in which the mounting member is an extrusion.
8. A water craft as claimed in claim 6 or claim 7, in which the mounting member is made from extruded aluminium.

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9. A water craft as claimed in any previous claim, in which the water craft has a hull and the keel is removably mounted to the hull.
10. A water craft as claimed in claim 9 when dependant on claim 6, in which the hull is a moulding having a channel formation and the mounting member is located in the channel.
- 5
11. A water craft as claimed in any previous claim, in which the water craft is an amphibious vehicle.
12. A water craft as claimed in any previous claim in which the elongate member is made from extruded rubber or synthetic rubber.
- 10
13. A water craft as claimed in any previous claim in which the keel further comprises a tip member located adjacent a forward end of the elongate member.
14. A water craft as claimed in any previous claim, in which the at least one corresponding mounting formation is a re-entrant channel into which a formation on the elongate member is slidably received.
- 15
15. A water craft as claimed in any previous claim, in which the elongate member has an elongate, longitudinal cavity.
16. A water craft as claimed in claim 15, in which the elongate member is adapted to be inflated, using either water or gas, to vary its profile.
17. A water craft as claimed in claim 15, in which the cavity is filled with a foam material.
- 20
18. An amphibious vehicle having a hull and a keel mounted to the hull, characterised in that the keel comprises an elongate extruded member having at least one mounting

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formation for cooperation with at least one corresponding formation on an extruded mounting member attached to the hull, for removably securing the elongate member to the hull.

- 5 19. An amphibious vehicle as claimed in claim 18, in which the at least one corresponding formation is a re-entrant channel into which a formation on the elongate member is slidably received.
- 10 20. An amphibious vehicle as claimed in claim 19, in which the channel is open at one end and the keel further comprises a tip member attached to the hull adjacent the open end to prevent the elongate member from being withdrawn from the channel in use.
21. An amphibious vehicle as claimed in claim 20, in which a metal cap member is provided over the tip member.
- 15 22. A water craft substantially as hereinbefore described, with reference to and as illustrated in Figures 1 and 2 in combination with Figure 3, or Figure 4, or Figure 5 of the accompanying drawings.

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